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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/048,013	04/29/2002	Michael Luconi	LUCONII	1351

1444 7590 06/03/2003

BROWDY AND NEIMARK, P.L.L.C.  
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SUITE 300  
WASHINGTON, DC 20001-5303

EXAMINER
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LEARY, LOUISE N

ART UNIT	PAPER NUMBER
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1654

DATE MAILED: 06/03/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/048,013

Applicant(s)

LUCONI ET AL.

Examiner

Louise N. Leary

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 19-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 19-28 is/are rejected.
- 7) ☒ Claim(s) 3,5 and 8-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. Claims 1-12 and 19-28 are pending in this application.

Claims 13-18 have been canceled per applicant's request.

2. Applicant is advised that should claims 11 and 12 be found allowable, claim 12 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim.

See MPEP § 706.03(k).

3. Claim 1-12 and 19-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86

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USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "improving the fertilization activity of spermatozoa", and the claim also recites "in particular for increasing spermatozoa motility" which is the narrower statement of the range/limitation.

Claims 1-3 and 19-28 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: (a) in vitro and in vivo method steps and/or; (b) method steps describing amounts of a phosphatidyl inositol-3-kinase used to treat the spermatozoa and/or; (c) method steps distinctly claiming reaction conditions necessary to perform the method.

Correction is required to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,4,6,7 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nass-Arden et al (Molecular Reproduction and Development, Vol. 25; p 369-373; (1990) in combination with Bonjouklian et al (US 5,378,725).

Nass-Arden et al report motility of spermatozoa treated with quercetin is stimulated 3-4 hours after incubation. Also, Nass-Arden et al describe results from comparing spermatozoa treated with quercetin to untreated spermatozoa. See the

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Abstract on page 369. Nass-Arden et al provide a description of sperm cells used in a wash and spin method. Note the "Materials and Methods" section on pages 369-370. Thus, Nass-Arden et al disclose the invention claimed except for stating quercetin is a phosphatidyl-3-kinase (PI3K) inhibitor.

However, regarding stating that quercetin is a phosphatidyl-3-kinase (PI3K) inhibitor in the instant method claimed, Bonjouklian et al disclose wortmannin or wortmannin analogs and quercetin or quercetin analogs inhibit phosphatidylinositol-3-kinase in human cells. See the abstract and column 1, lines 1-60 and column 2, lines 30-44.

Hence, Nass-Arden et al disclose the invention claimed except for stating quercetin is a phosphatidyl-3-kinase (PI3K) inhibitor which was provided by the Bonjouklian et al disclosure that wortmannin or wortmannin analogs and quercetin or quercetin analogs inhibit phosphatidylinositol-3-kinase in human cells. The instant invention was deemed obvious to skilled artisans at the time of conception in view of the Nass-Arden et al disclosure in combination with the Bonjouklian et al disclosure.

Therefore, it would have been obvious to one having ordinary skill in this art at the time this invention was made to provide a process as claimed because Nass-Arden et al disclose the method steps and starting materials used in the invention claimed except for stating quercetin is a phosphatidyl-3-kinase (PI3K) inhibitor that was provided by Bonjouklian et al disclosure that wortmannin or wortmannin analogs and quercetin or quercetin analogs inhibit phosphatidylinositol-3-kinase in human cells which renders obvious the invention claimed.


5. Claims 3, 5 and 8-10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louise N. Leary whose telephone number is (703) 308-3533. The examiner can normally be reached on Monday to Friday from 9:30 to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brenda Brumback, can be reached on (703) 306-3220. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

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LOUISE N. LEARY  
PRIMARY EXAMINER

May 31, 2003